



Exotic Newcastle Disease (END)

Exotic Newcastle Disease (END) is a contagious and fatal viral disease affecting most species of birds. Also known as Velogenic Viscerotropic Newcastle Disease (VVND), END is a foreign animal disease in the U.S. and is considered one of the most infectious diseases of birds and poultry. END can infect and cause death even in vaccinated poultry. Mortality is up to 90 percent of exposed birds.

Clinical Signs

END affects the respiratory, nervous, and digestive systems. The incubation period (the time it takes for a bird to become ill after exposure to the virus) ranges from 2 to 15 days. An infected bird may exhibit the following signs:

- Respiratory: sneezing, gasping for air, nasal discharge, coughing
- Digestive: greenish, watery diarrhea
- Nervous: depression, muscular tremors, drooping wings, twisting of head and neck, circling, complete paralysis
- Reduction in or complete loss of egg production
- Swelling of the tissues around the eyes and in the neck
- Sudden death

Introduction and Spread of END

END is spread primarily through direct contact between healthy birds and the bodily discharges of infected birds. The disease is transmitted through infected birds' droppings and secretions from the nose, mouth, and eyes.

END can also be spread easily by mechanical means. Virus-bearing material can be picked up on shoes and clothing and carried from an infected flock to a healthy one. The disease is often spread by vaccination and debeaking crews, manure haulers, rendering-truck drivers, feed-delivery personnel, poultry buyers, egg service people, and poultry farm owners and employees.

END can survive for several weeks in a warm and humid environment on birds' feathers, manure, and other materials. It can survive for very long periods in frozen material. However, the virus is destroyed rapidly by dehydration and by the ultraviolet rays in sunlight.

Biosecurity Measures on the Farm - Prevention is Key

The only way to eradicate END from commercial poultry is by destroying all infected flocks and imposing strict quarantine and in-depth surveillance programs. Poultry producers should strengthen biosecurity practices to prevent the introduction of END into their flocks. Biosecurity is also important to protect backyard and hobby flocks. The following are tips on proper biosecurity practices:

- Permit only essential workers and vehicles on the premise
- Provide clean clothing and disinfection facilities for employees
- Clean and disinfect vehicles (including tires and undercarriages) entering and leaving the premise
- Avoid visiting other poultry operations
- Maintain an "all-in, all-out" philosophy of flock management with a single-age flock
- Protect flocks from wild birds that may try to nest in poultry

houses or feed with domesticated birds

- Control movements associated with the disposal and handling of bird carcasses, litter, and manure
- Take sick birds to a diagnostic laboratory for examination

Pet Bird and Poultry Owners

END not only poses a threat to the commercial poultry industry, but also to the caged-bird and poultry hobbyist industries. Birds smuggled into the U.S. illegally bypass the U.S. Department of Agriculture's quarantine and testing procedures. If the birds are carrying the virus, the owner and animal health officials may not discover the infection until an outbreak occurs.

- Request certification from suppliers that birds are legally imported or are of U.S. stock, are healthy prior to shipment, and will be transported in new or thoroughly disinfected containers.
- Maintain records of all sales and shipments of flocks.
- Isolate all newly purchased birds for at least 30 days.
- Implement stringent biosecurity practices to prevent the introduction of END to pets and backyard flocks.

Amazon parrots are difficult to raise domestically. Sellers offering a large number of young parrots should be suspected of smuggling or of purchasing illegally imported birds. These birds pose a great risk of introducing END into the U.S. because they do not show symptoms and are capable of shedding virus for more than 400 days.

Reporting Suspicious Cases

If you have a large, unexpected death loss or illness in your flock, report it to your veterinarian and to the Texas Animal Health Commission (TAHC). Call the TAHC at 1-800-550-8242; a veterinarian is available 24 hours a day. Samples may be collected for diagnosis and sent to a poultry diagnostic laboratory.

**Information obtained from the U.S. Department of
Agriculture, Animal & Plant Health Inspection Service,
Veterinary Services (USDA-APHIS-VS)**

**and the
Texas Animal Health Commission (TAHC)**

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